

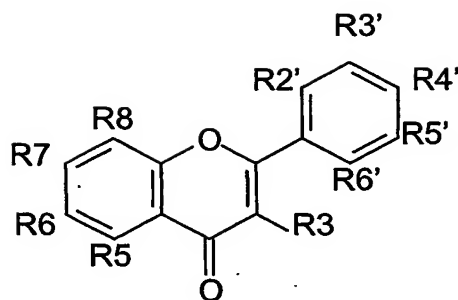
Claims

1. A pharmaceutical composition comprising
 - i) one or more purified flavonoids; and
 - 5 ii) purified menthol; and
 - iii) pharmaceutically acceptable excipients.
2. The pharmaceutical composition according to claim 1, wherein said composition essentially consists of
 - 10 i) one or more purified flavonoids; and
 - ii) purified menthol; and
 - iii) pharmaceutically acceptable excipients, wherein said excipients are not therapeutically active.
- 15 3. The pharmaceutical composition according to claim 1, wherein said composition also comprises a pharmaceutically acceptable metal complex and/or metal salt.
4. The pharmaceutical composition according to claim 3, wherein said composition essentially consists of
 - 20 i) one or more purified flavonoids; and
 - ii) purified menthol; and
 - iii) one or more metal complexes and/or metal salts; and
 - iv) pharmaceutically acceptable excipients, wherein said excipients are not
 - 25 therapeutically active.
5. The pharmaceutical composition according to any of claims 3 and 4, wherein said metal is zinc.
- 30 6. The pharmaceutical composition according to any of claims 3 and 4, wherein the metal is zinc selected from the group consisting of Zn^{2+} amino chelates, Zn^{2+} amino acid chelates, $\text{Zn}(\text{acetate})_2$, Zn^{2+} DL-methionine, Zn^{2+} L-methionine, ZnGluconate and PolaPreZinc®.
- 35 7. The pharmaceutical composition according to claim 1, wherein said composition

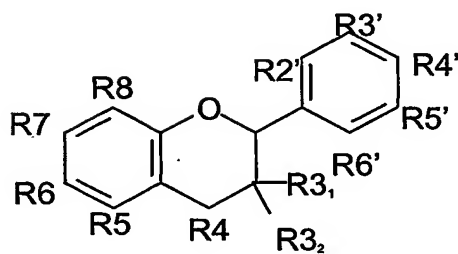
is useful for oral and/or nasal administration.

- 5 8. The pharmaceutical composition according to claim 1, wherein said composition is selected from the group consisting of lozenges, troches, capsules, syrups, tablets, lollipops, solutions, dispersions, suspensions, powders, micropheres, chewing tablets, chewing gums, sprays, droppers, pipettes and pills.
- 10 9. The pharmaceutical composition according to claim 1, wherein said composition is a slow-release composition.
- 10 10. The pharmaceutical composition according to claim 1, wherein said composition is lozenges.
- 15 11. The pharmaceutical composition according to claim 1, wherein said composition is essentially free of crude plant extracts.
12. The pharmaceutical composition according to claim 1, wherein said composition is essentially free of other terpenes than menthol.
- 20 13. The pharmaceutical composition according to claim 1, wherein said composition is essentially free of one or more selected from the group consisting of menthone, menthyl acetate, limonene and neomenthol.
- 25 14. The pharmaceutical composition according to claim 1, wherein one or more flavonoids are chelating a metal.
15. The pharmaceutical composition according to claim 1, wherein the metal is Zn^{2+} .
- 30 16. The pharmaceutical composition according to claim 1, wherein the flavonoid is selected from the group consisting of flavonoids of the general formula:

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and the general formula:



Wherein

R2' can be selected from:

-H
-OH

R3' can be selected from:

-H
-OH
-OCH₃
-OCH₂CH₂OH

R4' can be selected from:

-H
-OH
-OCH₃
-OCH₂CH₂OH

R5' can be selected from:

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-H
-OH
-OCH₃
-OCH₂CH₂OH

R6' is -H;

10 R3 including R3₁ and R3₂ can individually be selected from:

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-H
-OH
-O-rutinoside
-O-glucoside
-O-glucose-p-coumaric acid
-SOH
-O-rhamnose

20 R4 can be selected from: -(O)

-OH

R5 can be selected from: -H

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-OH
-O-CH₂CH₂OH

R6 can be selected from: -H

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-OH
-OCH₃

R7 can be selected from: -H

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-OH
-O-glucose
-OCH₃
-OCH₂CH₂OH

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-O-glucuronic acid
-O-rutinoside
-O-rhamnoglucoside

5 R8 can be selected from: -H
-OH

- 10 17. The pharmaceutical composition according to claim 1, wherein the flavonoid is selected from the group consisting of troxerutin, venoruton, hesperitin, naringenin, nobiletin, tangeritin, baicalein, galangin, genistein, quercetin, apigenin, kaempferol, fisetin, rutin, luteolin, chrysin, taxifolin, eriodictol, catechitin, epicatechin gallate, epigallocatechin gallate, flavone, sideritoflavone, hypolaetin-8-O-Gl, oroxindin, 3-hydroxyflavone, morin, quercetagenin-7-O-Gl, tambuletin, gossypin, hipifolin, naringin, leucocyanidol, amentoflavone and derivatives thereof and mixtures thereof
- 15 18. The pharmaceutical composition according to claim 1, wherein said flavonoid is not a naturally occurring flavonoid.
- 20 19. The pharmaceutical composition according to claim 1, wherein said flavonoid is a rutoside.
- 25 20. The pharmaceutical composition according to claim 1, wherein at least one flavonoid is a rutoside aglycone.
- 30 21. The pharmaceutical composition according to claim 1, wherein said flavonoid is a hydroxyethylrutoside.
22. The pharmaceutical composition according to claim 1, wherein at least one flavonoid is a hydroxyethylrutoside aglycone.
23. The pharmaceutical composition according to claim 1, wherein said composition comprises a mixture of hydroxyethylrutosides.
- 35 24. The pharmaceutical composition according to claim 1, wherein said composition

comprises a mixture of mono-, di-, tri- and tetrahydroxyethylrutosides.

25. The pharmaceutical composition according to claim 1, wherein at least one flavonoid is troxerutin.

26. The pharmaceutical composition according to claim 1, where at least one flavonoid is troxerutin aglycone.

27. The pharmaceutical composition according to claim 1, wherein the flavonoid is veneruton.

28. Use of one or more purified flavonoids and purified menthol for the preparation of a pharmaceutical composition for the treatment of a clinical condition or symptoms of a clinical condition in an individual in need thereof.

29. Use according to claim 28, wherein said pharmaceutical composition essentially consists of

- i) one or more purified flavonoids; and
- ii) purified menthol; and
- iii) pharmaceutically acceptable expients, wherein said expients are not therapeutically active.

30. Use according to claim 28, wherein said pharmaceutical composition further comprises a pharmaceutically acceptable metal complex and/or metal salt.

31. Use according to claim 28, wherein said medicament essentially consists of

- i) one or more purified flavonoids; and
- ii) purified menthol; and
- iii) one or more metal complexes and/or metal salts; and
- iv) pharmaceutically acceptable expients, wherein said expients are not therapeutically active.

32. Use according to claim 31, wherein said metal is zinc.

33. Use according to claim 28, wherein said pharmaceutical composition is useful for oral administration.
- 5 34. Use according to claim 28, wherein said composition is selected from the group consisting of lozenges, troches, capsules, syrups, tablets, lollipops, solutions, dispersions, suspensions, powders, micropheres, chewing tablets, chewing gums, sprays and pills.
- 10 35. Use according to claim 28, wherein said composition is essentially free of crude plant extracts.
36. Use according to claim 28, wherein said composition is essentially free of other terpenes than menthol.
- 15 37. Use according to claim 28, wherein said flavonoid is not a naturally occurring flavonoid.
38. Use according to claim 28, wherein said flavonoid is a rutoside.
- 20 39. Use according to claim 28, wherein at least one flavonoid is a rutoside aglycone.
40. Use according to claim 28, wherein said flavonoid is a hydroxyethylrutoside.
- 25 41. Use according to claim 28, wherein at least one flavonoid is a hydroxyethylrutoside aglycone.
42. Use according to claim 28, wherein said composition comprises a mixture of hydroxyethylrutosides.
- 30 43. Use according to claim 28, wherein at least one flavonoid is troxerutin.
44. Use according to claim 28, where at least one flavonoid is troxerutin aglycone.
- 35 45. Use according to claim 28, wherein the flavonoid is veneruton.

46. Use according to claim 28, wherein the at least one flavonoid is veneruton aglycone.
- 5 47. Use according to claim 28, wherein said clinical condition is a condition relating to common cold.
48. Use according to claim 28, wherein the clinical condition is common cold of the upper and/or lower respiratory tract and/or eyes.
- 10 49. Use according to claim 47, wherein the conditions relating to common cold are viral infections of the upper and/or lower respiratory tract and/or eyes.
50. Use according to claim 47, wherein the conditions relating to common cold are bacterial infections of the upper and/or lower respiratory tract and/or eyes.
- 15 51. Use according to claim 47, wherein the conditions relating to common cold are allergic conditions of the upper and/or lower respiratory tract and/or eyes.
- 20 52. Use according to claim 47, wherein the conditions relating to common cold are characterized by one or more symptoms of the group comprising coughing, sneezing, muscle pain, sore throat, irritated throat, hoarseness, headache, malaise, chilliness, fever, nasal discharge, nasal obstruction, pain relating to the sinuses, rhinitis, swelling of mucosal membranes, pharyngitis, asthma, and bronchitis.
- 25 53. Use according to claim 47, wherein the condition relating to common cold is a viral infection caused by or associated with one or more viruses selected from the group consisting of adenoviruses, parvoviruses, picornaviruses, reoviruses, orthomyxoviruses, paramyxoviruses, arenaviruses, caliciviruses, coronaviruses, 30 orthomyxoviruses, rhinovirus, influenza virus, including influenza virus type A and B, echovirus and coxsackie virus.
- 35 54. Use according to claim 47, wherein the condition relating to common cold is a viral infection caused by or associated with one or more viruses selected from the group consisting of coronaviruses and rhinoviruses.

55. Use according to claim 47, wherein the condition relating to common cold is a bacterial infection caused by or associated with one or more bacteria selected from the group consisting of *Streptococcus pneumoniae*, *Streptococcus Haemolyticae*, *Haemophilus influenzae*, and *Moraxella catarrhalis*.
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56. Use according to claim 47, wherein the condition relating to common cold is an allergic condition selected from the group consisting of rhinitis, acute and chronic bronchitis and hay fever.
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57. Use according to claim 47, wherein the condition related to common cold is an allergic condition characterised by one or more symptoms selected from the group consisting of nasal discharge, nasal congestion, sneezing, cough, swelling of mucosal membranes and rhinitis.
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58. A method of treatment of a clinical condition or symptoms of a clinical condition in an individual in need thereof, comprising administering to said individual the pharmaceutical composition according to any of claims 1 to 27.
- 20 59. The method according to claim 58, wherein said clinical condition is a condition relating to common cold.
60. The method according to claim 58, wherein the clinical condition is common cold of the upper and/or lower respiratory tract and/or eyes.
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61. The method according to claim 59, wherein the conditions relating to common cold are viral infections of the upper and/or lower respiratory tract and/or eyes.
62. The method according to claim 59, wherein the conditions relating to common cold are bacterial infections of the upper and/or lower respiratory tract and/or eyes.
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63. The method according to claim 59, wherein the conditions relating to common cold are allergic conditions of the upper and/or lower respiratory tract and/or eyes.
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64. The method according to claim 59, wherein the conditions relating to common cold are characterized by one or more symptoms of the group comprising coughing, sneezing, muscle pain, sore throat, irritated throat, hoarseness, headache, malaise, chilliness, fever, nasal discharge, nasal obstruction, pain relating to the sinuses, rhinitis, swelling of mucosal membranes, pharyngitis, asthma, and bronchitis.
65. The method according to claim 59, wherein the condition relating to common cold is a viral infection caused by or associated with one or more viruses selected from the group consisting of adenoviruses, parvoviruses, picornaviruses, reoviruses, orthomyxoviruses, paramyxoviruses, arenaviruses, calciviruses, coronaviruses, orthomyxoviruses, rhinovirus, influenza virus, including influenza virus type A and B, echovirus and coxsackie virus.
66. The method according to claim 59, wherein the condition relating to common cold is a viral infection caused by or associated with one or more viruses selected from the group consisting of coronaviruses and rhinoviruses.
67. The method according to claim 59, wherein the condition relating to common cold is a bacterial infection caused by or associated with one or more bacteria selected from the group consisting of *Streptococcus pneumoniae*,, *Streptococcus Haemolyticae*, *Haemophilus influenzae*, and *Moraxella catarrhalis*.
68. The method according to claim 59, wherein the condition relating to common cold is an allergic condition selected from the group consisting of rhinitis, acute and chronic bronchitis and hay fever.
69. The method according to claim 59, wherein the condition related to common cold is an allergic condition characterised by one or more symptoms selected from the group consisting of nasal discharge, nasal congestion, sneezing, cough, swelling of mucosal membranes and rhinitis.
70. The method according to claim 58, wherein the administration is to the mucosal

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membrane of the upper and/or lower respiratory tract and/or of the eyes.

- 5 71. The method according to claim 58, wherein the administration is topical to the mucosal membrane of the oral cavity.
72. A medicament for treating a clinical condition comprising purified flavonoid and purified menthol as active ingredients.
- 10 73. The medicament according to claim 72, wherein said clinical condition is a condition relating to common cold.
74. A method of reducing the amount of virus in a composition, comprising incubating said composition comprising virus with menthol.
- 15 75. The method according to claim 74, wherein said virus is rhinovirus.
76. A method of reducing the amount of virus in an individual infection with said virus, comprising administering to said individual a pharmaceutical composition comprising menthol, thereby reducing the amount of said virus in said individual.
- 20 77. The method according to claim 76, wherein said virus is rhinovirus.
78. The method according to claim 76, wherein the method further comprises administering at least one flavonoid to said individual.
- 25 79. Use of menthol for the preparation of a pharmaceutical composition for reduction of virus in an individual in need thereof.
80. Use according to claim 79, wherein said virus is a rhinovirus.
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